

10/5/2022
DT01 Rec'd PCT/PTC 19 OCT 2004

93120

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application)
Applicant: Tetsuhiro IIDA et al.)
Serial No.: To Be Assigned)
Filed: Herewith)
For: METHOD FOR PRODUCING SINGLE CRYSTAL)
SILICON, METHOD FOR PRODUCING SINGLE)
CRYSTAL SILICON WAFER, SEED CRYSTAL FOR)
PRODUCING SINGLE CRYSTAL SILICON, SINGLE)
CRYSTAL SILICON INGOT, AND SINGLE CRYSTAL)
SILICON WAFER)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313

Sir:

Pursuant to 37 C.F.R. §1.97, a list of documents is disclosed on the attached Form PTO-1449 that may be material to the examination of this application. The cited references are enclosed herewith.

Documents for which the supplied date of publication lists the year of publication without the month were published sufficiently earlier than the effective U.S. filing date and any foreign priority date, so that the particular month of publication is not in issue. Pursuant to §609 of the MPEP, it is understood that the month of publication is not required when the particular month of publication is not in issue.

No inferences should be drawn that the attached list represents a comprehensive investigation, or that any material disclosed is equivalent to the subject invention. In addition, none of the documents that have publication dates prior to the priority date of the above application anticipate the invention in this application.

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Atty. Docket No.: 93120

Applicant also encloses a copy of the PCT Search Report and cited references therein.

The cited document(s) disclose numerous specific features. There has been no attempt to list each and every feature disclosed by each document. The Examiner is requested to review the document(s) and determine the extent of the materiality of the document disclosures with respect to the present invention.

The discussion of any art and the citation of any document(s) herein is not to be construed as an admission that the art or document disclosure is necessarily within the invention field of endeavor, that the art or document disclosure is necessarily prior in time to a particular date which may be relevant to the instant patent application, and/or that the art or document disclosure is otherwise necessarily prior art as defined by the patent law with respect to the instant invention and application.

Also, there is reserved the right to later set forth how the instant invention is distinguished over the disclosure of any document or other art, including the disclosures of the art and document(s) recited herein, that may be cited by the Examiner in rejecting a claim in the instant patent application. The recitation herein of the art and document(s) is not to be construed as an assertion that more pertinent art could not possibly be in existence.

Respectfully submitted,

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Dated: October 19, 2004

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| | | Application Number | Unassigned 10/512022 |
| | | Filing Date | October 19, 2004 |
| | | First Named Inventor | Tetsuhiro et al. |
| | | Art Unit | Unassigned |
| | | Examiner Name | Unassigned |
| Sheet | 1 | of | 1 |
| | | Attorney Docket Number | 93120 |

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
| | | Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) | | | | |
| | | JP 63123893 | 05/27/1988 | Shoichi et al. | | Abstract |
| | | JP 03080184 | 04/04/1991 | NEC Corporation | | Abstract |
| | | JP 57-017494 | 01/29/1982 | Toshiba Corporation | | Abstract |
| | | JP 09-165298 | 06/24/1997 | Koji et al. | | Abstract |

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ⁸ |
|--------------------|-----------------------|---|----------------|
| | | Murthy et al.; "Growth of Dislocation-Free Silicon Crystals in the (110) Direction for Use as Neutron Monochromators," <i>Journal of Crystal Growth</i> , Vol. 52, (1981), pp. 391-395. | |
| | | Hoshikawa et al.; "Dislocation-Free Czochralski Silicon Crystal Growth without the Dislocation-Elimination-Necking Process," <i>Japan Journal of Applied Phys.</i> , Vol. 38 (1999) pp. L1369-L1371. | |
| | | | |

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|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
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¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST .3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST .16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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